

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 13, 2006. Claims 8, 10, 18, 20, 22 and 38 to 46 are in the application, with Claims 9, 19 and 25 to 37 having been canceled and new Claims 38 to 46 having been added. Claims 8, 18 and 22 are independent. Reconsideration and further examination are respectfully requested.

Claims 8, 18, 22, 25, 27 to 31 and 33 to 37 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,219,706 (Fan), Claims 9 and 19 were rejected under 35 U.S.C. § 103(a) over Fan in view of U.S. Patent No. 6,530,025 (Nakagawa), Claims 10 and 20 were rejected under § 103(a) over Fan in view of U.S. Patent No. 5,646,872 (Yonenaga), and Claims 26 and 32 were rejected under § 103(a) over Fan in view of IANA Well Known Port Numbers. Reconsideration and withdrawal of the rejections are respectfully requested.

The invention concerns controlling an apparatus to execute a data process requested by an external apparatus based on a port number. According to the invention, when data addressed to the port number is received from an external apparatus, a control unit discriminates whether or not the port number and discrimination information of the external apparatus have been correlated with each other. Then control is performed to execute a process based on the received data in a case where it is discriminated that the port number and the discrimination information of the external apparatus have been correlated with each other. On the other hand, control is performed not to execute the process based on the received data in a case where it is discriminated that the port number

and the discrimination information of the external apparatus have not been correlated with each other. Thus, according to the present invention, even if the computer sets a random port number and sends data thereto, it is possible to reduce occasions that the transmitted data is erroneously received and processed.

By way of example, if a port number "1000" has been fixedly allocated to a print process, the following problem may occur. That is, in a case where a computer A intends to transmit data to the port number "1000" to execute the print process, if another computer B transmits data to the same port number "1000", the computer A cannot execute the print process using the port number "1000". Namely, even if the computer B randomly sets the port number "1000", the data of the computer B is received and processed.

On the other hand, according to the present invention, since the port number is dynamically allocated according to a request from a computer, it is possible to reduce occasions that such a problem as described above occurs. More specifically, if a print process is requested from a computer A, a port number "1000" is notified to the computer A, and the computer A and the port number "1000" are correlated with each other. After then, even if data is transmitted from a computer B to the port number "1000", any data process is not executed because the computer B and the port number "1000" are not correlated with each other. As just described, according to the present invention, since the correlating process for correlating the materials to be used to discriminate permission/non-permission of the process is executed every time the request is received from the computer, such a significant effect as described above can be achieved.

Referring specifically to the claims, amended independent Claim 8 is directed to a data processing apparatus which communicates with a computer via a network, said data processing apparatus comprising a reception unit that receives a request transmitted from the computer via the network, wherein the request includes a kind of data process to be executed, a port number notifying unit that notifies the computer of a port number corresponding to a kind of data process included in the request received by said reception unit, a correlating unit that correlates, after the reception by said reception unit, discrimination information of the computer that transmitted the request and the port number notified by said port number notifying unit with each other, a data receiving unit that receives data addressed to the port number, from an external apparatus, and a control unit that discriminates whether or not the port number and discrimination information of the external apparatus have been correlated with each other by said correlating unit, controls to execute a process based on the data received by said data receiving unit in a case where it is discriminated that the port number and the discrimination information of the external apparatus have been correlated with each other, and controls not to execute the process based on the data received by said data receiving unit in a case where it is discriminated that the port number and the discrimination information of the external apparatus have not been correlated with each other.

Claims 18 and 22 are method and computer medium claims, respectively, that substantially correspond to Claim 8.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 8, 18 and 22, and in particular, is not seen to

disclose or to suggest at least the features of, when a request that includes a kind of data process to be executed transmitted from a computer is received, notifying the computer of a port number corresponding to a kind of data process included in the request, and correlating, after the reception of the request from the computer, discrimination information of the computer that transmitted the request and the notified port number with each other, and then when data addressed to the port number is received, discriminating whether or not a notified port number and discrimination information of an external apparatus from which data addressed to the port number is received have been correlated with each other, and then controlling to execute a process based on data received the external apparatus in a case where it is discriminated that the port number and the discrimination information of the external apparatus have been correlated with each other, and controlling not to execute the process based on the received data receiving in a case where it is discriminated that the port number and the discrimination information of the external apparatus have not been correlated with each other.

Fan is seen to disclose that, if a data packet is received by a firewall, communication is permitted/not permitted based on an IP address, a port number and an access control list. However, Fan does not disclose a means for notifying a computer of the port number corresponding to a kind of data process included in a request received from the computer, and a means for correlating, after receiving the request from the computer, the relevant computer and the port number with each other. As such, Fan also cannot perform the claimed discriminating step. In Fan, although the dynamically created access control list is used, the computer which transmitted the request is not correlated with

the port number. Moreover, the port number corresponding to a kind of data process included in the request is not communicated.

Nakagawa is seen to disclose that a client PC transmits a service request, a user ID and an authentication password to an authentication server, and further discloses that the authentication server calculates reliability of a user, opens a port for accepting a resource request, and notifies the client PC of the relevant port. However, in Nakagawa, the authentication server randomly determines a port number to be notified to the client PC (see Fig. 11). That is, it is apparent that the authentication server in Nakagawa does not notify the computer of the port number corresponding to a kind of data process included in the request received from the client PC. In addition, Nakagawa does not disclose a means for correlating, after receiving the request from the client PC, the relevant client PC and the port number with each other. As such, Nakagawa, even when combined with Fan, also fails to teach the claimed discriminating step.

Yonenaga merely discloses a computer which is equipped with a printer, and IANA Well Known Port Numbers merely discloses kinds of Well Known Ports. That is, Yonenaga and IANA Well Known Port Numbers do not disclose the above characteristics of the present invention.

Thus, any permissible combination of Fan, Nakagawa, Yonenaga, and IANA would not have resulted in the claimed features of, when a request that includes a kind of data process to be executed transmitted from a computer is received, notifying the computer of a port number corresponding to a kind of data process included in the request, and correlating, after the reception of the request from the computer, discrimination

information of the computer that transmitted the request and the notified port number with each other, and then when data addressed to the port number is received, discriminating whether or not a notified port number and discrimination information of an external apparatus from which data addressed to the port number is received have been correlated with each other, and then controlling to execute a process based on data received the external apparatus in a case where it is discriminated that the port number and the discrimination information of the external apparatus have been correlated with each other, and controlling not to execute the process based on the received data receiving in a case where it is discriminated that the port number and the discrimination information of the external apparatus have not been correlated with each other.

In view of the foregoing amendments and deficiencies of the applied art, amended independent Claims 8, 18 and 22, as well as the claims dependent therefrom, are believed to be allowable.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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